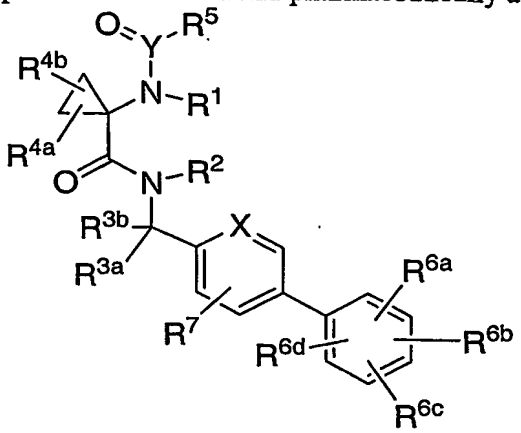
WHAT IS CLAIMED IS:

1. A compound of formula I and pharmaceutically acceptable salts thereof:



I

wherein

R^1 and R^2 are independently selected from hydrogen and C_{1-4} alkyl;

R^{3a} and R^{3b} are independently selected from hydrogen and C_{1-4} alkyl optionally substituted with 1 to 5 halogen atoms;

R^{4a} and R^{4b} are independently selected form hydrogen, halogen, and C_{1-4} alkyl optionally substituted with 1 to 4 groups selected from halogen, OR^a, $OC(O)R^a$, $S(O)_kR^d$, $OS(O)_2R^d$, and NR^1R^2, or R^{4a} and R^{4b} together with the carbon atom to which they are both attached form an exo-cyclic methylene optionally substituted with 1 to 2 groups selected from C_{1-4} alkyl optionally substituted with 1-5 halogens and C_{1-4} alkyloxy;

R^5 is selected from (1) C_{1-6} alkyl optionally substituted with 1 to 5 groups independently selected from halogen, nitro, cyano, OR^a, SR^a, COR^a, SO_2R^d, CO_2R^a, $OC(O)R^a$, NR^bR^c, $NR^bC(O)R^a$, $NR^bC(O)_2R^a$, $C(O)NR^bR^c$, C_{3-8} cycloalkyl, (2) C_{3-8} cycloalkyl optionally substituted with 1 to 5 groups independently selected from halogen, nitro, cyano and phenyl, (3) C_{3-6} alkynyl, (4) C_{2-6} alkenyl optionally substituted with hydroxyethyl, (5) $(CH_2)_k$-aryl optionally substituted with 1 to 3 groups independently selected from halogen, nitro, cyano, OR^a, SR^a, $C(O)_2R^a$, C_{1-4} alkyl and C_{1-3} haloalkyl; (6) $(CH_2)_k$-heterocycle optionally substituted with 1 to 3 groups independently selected from halogen, nitro, cyano, OR^a, SR^a, C_{1-4} alkyl and C_{1-3} haloalkyl wherein said heterocycle is selected from (a) a 5-membered heteroaromatic ring having a ring heteroatom selected from N, O and S, and optionally having up to 3 additional ring nitrogen atoms wherein said ring is optionally benzo-fused; (b) a 6-membered heteroaromatic ring containing from 1 to 3 ring nitrogen atoms and N-oxides thereof, wherein said ring is optionally benzo-fused; and (c) a 5- or 6-membered non-aromatic heterocyclic ring selected from

tetrahydrofuranyl, 5-oxotetrahydrofuranyl, 2-oxo-2H-pyranyl, 6-oxo-1,6-dihydropyridazinyl, (7) $C(O)_2R^a$, and (8) $C(O)NR^bR^c$;

R^{6a} is selected from (1) $-OSO_2R^8$, (2) $-NR^{8a}SO_2R^9$, and (3) $-C(R^{8b})(R^{8c})SO_2R^9$;

R^{6b}, R^{6c}, and R^{6d} are independently selected from (1) hydrogen, (2) halogen, (3) OSO_2R^8, (4) C_{1-4} alkyl optionally substituted with 1 to 5 halogen atoms, (5) cyano, (6) nitro, (7) OR^a, and (8) CO_2R^a, or when attached to adjacent carbon atoms R^{6c} and R^{6d} together with the carbon atoms to which they are attached form a 5- to 8-membered saturated or unsaturated ring;

R^7 is selected from (1) hydrogen, (2) halogen, (3) cyano, (4) nitro, (5) OR^a, (6) CO_2R^a, (7) $C(O)NR^bR^c$, and (8) C_{1-4} alkyl optionally substituted with 1 to 5 halogen atoms,

R^8 is selected from (1) C_{1-4} alkyl optionally substituted with 1 to 5 halogen atoms, (2) $(CH_2)_k$-aryl optionally substituted with 1 to 3 groups independently selected from halogen, nitro, cyano, $NR^aC(O)R^a$, OR^a, SR^a, CO_2R^a, C_{1-4} alkyl, C_{1-3} haloalkyl and NR^bR^c, (3) NR^bR^c, and (4) hydrogen;

R^{8a} is selected from hydrogen, C_{1-4} alkyl optionally substituted with 1 to 5 halogen atoms, halogen, and CO_2R^a, or

when R^{6a} and R^{6b} are attached to adjacent atoms, R^{8a} and R^{6b} together complete 5- or 6-membered ring;

R^{8b} and R^{8c} are independently selected from hydrogen, C_{1-4} alkyl optionally substituted with 1 to 5 halogen atoms, halogen, cyano, nitro, CO_2R^a, and OR^a;

R^9 is selected from (1) C_{1-4} alkyl optionally substituted with 1 to 5 halogen atoms, (2) aryl optionally substituted with 1 to 3 groups independently selected from halogen, nitro, cyano, $NR^aC(O)R^a$, OR^a, SR^a, CO_2R^a, C_{1-4} alkyl and C_{1-3} haloalkyl, and (3) $(CH_2)_k$-aryl optionally substituted with 1 to 3 groups independently selected from halogen, nitro, cyano, $NR^aC(O)R^a$, OR^a, SR^a, $C(O)_2R^a$, C_{1-4} alkyl and C_{1-3} haloalkyl, or

R^{8a} and R^9 together with the atoms to which they are attached form a 5- to 8-membered heterocyclic ring;

R^a, R^b and R^c are independently selected from (1) hydrogen, (2) C_{1-4} alkyl optionally substituted with 1 to 5 halogen atoms, (3) phenyl optionally substituted with 1 to 3 groups selected from halogen, cyano, nitro, OH, C_{1-4} alkyloxy, C_{3-6} cycloalkyl and C_{1-4} alkyl optionally substituted with 1 to 5 halogen atoms, and (4) C_{3-6} cycloalkyl, or

R^b and R^c together with the nitrogen atom to which they are attached form a 4-, 5-, or 6-membered ring optionally containing an additional heteroatom selected from N, O, and S; or

R^b and R^c together with the nitrogen atom to which they are attached form a cyclic imide;

R^d is selected from (1) C_{1-4} alkyl optionally substituted with 1 to 5 halogen atoms, (2) C_{1-4} alkyloxy, (3) phenyl optionally substituted with 1 to 3 groups selected from halogen, cyano, nitro, OH, C_{1-4}

alkyloxy, C_{3-6} cycloalkyl and C_{1-4} alkyl optionally substituted with 1 to 5 halogen atoms, and (4) hydrogen;

X is selected from CH and N;

Y is selected from C and S=O; and

k is selected from 0, 1, and 2.

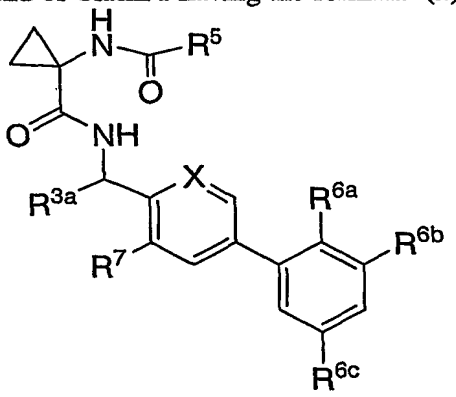
2. A compound of Claim 1 wherein R^5 is selected from pyrimidinyl and C_{1-6} alkyl optionally substituted with 1 to 5 groups independently selected from halogen.

3. A compound of Claim 1 wherein Y is C.

4. A compound of Claim 1 wherein R^{6a} is OSO_2R^8 and R^8 is selected from 2,2,2,-trifluoroethyl, trifluoromethyl, methyl, ethyl, propyl, isopropyl, phenyl, benzyl, and dimethylamino; or R^{6a} is $NHSO_2R^9$ and R^9 is methyl or trifluoromethyl.

5. A compound of Claim 1 wherein R^{6b} is selected from hydrogen, fluorine, and chlorine.

6. A compound of Claim 1 having the formula I(2):



I(2)

wherein X is N or CH, R^{3a} is H or C_{1-4}alkyl, R^7 is hydrogen or halogen, and R^5, R^{6a}, R^{6b} and R^{6c} have the same definitions as provided in Claim 1.

7. A compound of Claim 6 wherein R^{6a} is $NHSO_2R^9$; R^9 is C_{1-4}alkyl optionally substituted with 1 to 5 halogen atoms, R^{6b} is halogen, and R^{6c} is hydrogen or halogen.

8. A compound of Claim 10 wherein R^{6a} is OSO_2R^8; R^8 is selected from methyl, trifluoromethyl, ethyl, propyl, isopropyl, benzyl, dimethylamino, 2,2,2-trifluoroethyl, and phenyl; R^{6b} is hydrogen or halogen, and R^{6c} is hydrogen or halogen.

9. A compound of Claim 10 wherein R5 is pyrimidinyl or C_{1-4}alkyl optionally substituted with 1 to 5 groups independently selected from halogen.

10. A compound selected from

3,3'-difluoro-4'-{[({1-[(pyrimidin-5-ylcarbonyl)amino]cyclopropyl}carbonyl)amino]methyl}-1,1'-biphenyl-2-yl trifluoromethanesulfonate,

3,3'-difluoro-4'-{(1R)-1-[({1-[(trifluoroacetyl)amino]cyclopropyl}carbonyl)amino]ethyl}-1,1'-biphenyl-2-yl trifluoromethanesulfonate,

3,3'-difluoro-4'-((1R)-1-{[(1-{[(trifluoromethyl)sulfonyl]amino}cyclopropyl)carbonyl]amino}ethyl)-1,1'-biphenyl-2-yl trifluoromethanesulfonate,

1-({[(1R)-1-(3,3'-difluoro-2'-{[(trifluoromethyl)sulfonyl]oxy}-1,1'-biphenyl-4-yl)ethyl]amino}carbonyl)-cyclopropanaminium trifluoroacetate,

3,3'-difluoro-4'-{(1R)-1-[({1-[(trifluoroacetyl)amino]cyclopropyl}carbonyl)amino]ethyl}-1,1'-biphenyl-2-yl methanesulfonate,

5-chloro-3,3'-difluoro-4'-{(1R)-1-[({1-[(trifluoroacetyl)amino]cyclopropyl}carbonyl)amino]ethyl}-1,1'-biphenyl-2-yl trifluoromethanesulfonate,

3,3'-difluoro-4'-{(1R)-1-[({1-[(trifluoroacetyl)amino]cyclopropyl}carbonyl)amino]ethyl}-1,1'-biphenyl-2-yl ethanesulfonate,

3,3'-difluoro-4'-{(1R)-1-[({1-[(trifluoroacetyl)amino]cyclopropyl}carbonyl)amino]ethyl}-1,1'-biphenyl-2-yl propane-1-sulfonate

3,3'-difluoro-4'-{(1R)-1-[({1-[(trifluoroacetyl)amino]cyclopropyl}carbonyl)amino]ethyl}-1,1'-biphenyl-2-yl propane-2-sulfonate,

3,3'-difluoro-4'-{(1R)-1-[({1-[(trifluoroacetyl)amino]cyclopropyl}carbonyl)amino]ethyl}-1,1'-biphenyl-2-yl benzenesulfonate,

3,3'-difluoro-4'-{(1R)-1-[({1-[(trifluoroacetyl)amino]cyclopropyl}carbonyl)amino]ethyl}-1,1'-biphenyl-2-yl phenylmethanesulfonate

3,3'-difluoro-4'-{(1R)-1-[({1-[(trifluoroacetyl)amino]cyclopropyl}carbonyl)amino]ethyl}-1,1'-biphenyl-2-yl dimethylsulfamate,
3,3'-difluoro-4'-{(1R)-1-[({1-[(trifluoroacetyl)amino]cyclopropyl}carbonyl)amino]ethyl}-1,1'-biphenyl-2-yl 2,2,2-trifluoroethanesulfonate,
3-chloro-3'-fluoro-4'-{(1R)-1-[({1-[(trifluoroacetyl)amino]cyclopropyl}carbonyl)amino]ethyl}-1,1'-biphenyl-2-yl trifluoromethanesulfonate,
3'-fluoro-4'-{(1R)-1-[({1-[(trifluoroacetyl)amino]cyclopropyl}carbonyl)amino]ethyl}-2-{[(trifluoromethyl)sulfonyl]oxy}-1,1'-biphenyl-3-yl trifluoromethanesulfonate,
N-(1-{[((1R)-1-{3,3'-difluoro-2'-[methyl(methylsulfonyl)amino]-1,1'-biphenyl-4-yl}ethyl)amino]carbonyl}cyclopropyl)pyrimidine-5-carboxamide,
N-(1-{[({3,3'-difluoro-2'-[(methylsulfonyl)amino]-1,1'-biphenyl-4-yl}methyl)amino]carbonyl}cyclopropyl)pyrimidine-5-carboxamide,
N-{1-[({[2'-(1,1-dioxido-1,2-thiazinan-2-yl)-3,3'-difluoro-1,1'-biphenyl-4-yl]methyl}amino)carbonyl]cyclopropyl}pyrimidine-5-carboxamide,
N-[(1R)-1-(3,3'-difluoro-2'-{[(trifluoromethyl)sulfonyl]methyl}-1,1'-biphenyl-4-yl)ethyl]-1-[(trifluoroacetyl)amino]cyclopropanecarboxamide,
N-[(1R)-1-(3,3'-difluoro-2'-{[(trifluoromethyl)sulfonyl]amino}-1,1'-biphenyl-4-yl)ethyl]-1-[(trifluoroacetyl)amino]cyclopropanecarboxamide, and
N-(1-{[((1R)-1-{3,3'-difluoro-2'-[(methylsulfonyl)amino]-1,1'-biphenyl-4-yl}ethyl)amino]carbonyl}cyclopropyl)pyrimidine-5-carboxamide.

11. A pharmaceutical composition comprising a therapeutically effective amount of a compound of Claim 1 and a pharmaceutically acceptable carrier.

12. Use of a compound of Claim 1 or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for the treatment or prevention of pain and inflammation.

13. Use of Claim 30 wherein said pain is postherpetic neuropathy, osteoarthritis pain, or dental pain.